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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,108	07/31/2001	Gary L. Thunquest	10004737-1	3464

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,108

Applicant(s)

THUNQUEST ET AL.

Examiner

Wen-Tai Lin

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10,12-15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-10,12-15,17 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 6 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-3, 5-10, 12-15 and 17-21 are presented for examination. Claims 4, 11 and 16 have been canceled and claims 19-21 are newly added.
2. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.
3. Claims 6 and 18 are objected to because it is not clear how the "zeroing-out" approach (or DAMP method) would lead a packet destined to networked nodes such as those illustrated in Fig.8. Specifically, according to the method described in claims 6 and 18, destination addresses other than the immediate next hop addresses would be zeroed out, then packet 821 of Fig.8 is erred because its next hop address is router 825 (with network address 15.5.2). That is, the DAMP recipients in packet 821 should all have been zeroed out except for address 15.5.2.35 (just as that of packet 822). If so, packet 821 would be stuck at node 825.

In response to this office action, Applicant is requested to clarify the above missing link and provide a satisfactory explanation as how would DAMP method work based on Fig.8.

Claim Rejections - 35 USC § 103

4. Claims 1-3, 5, 7-10, 12-15, 17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boivie et al.[U.S. Pat. No. 6625773].

5. Boivie was cited in the previous office action.

6. As to claims 1 and 19, Boivie teaches the invention as claimed including: a method for transmitting data packets over a network to selected multiple remote destinations, the method comprising the steps of:

embedding in a first data packet a list of multiple remote destination addresses corresponding to each of the selected multiple remote destinations [col.2, lines 34-35];

providing an addressing protocol by which networking elements are capable of accessing the list of multiple remote destination addresses [col.2, lines 36-39]; and

instructing networking elements to transmit a copy of the first data packet to each of the selected multiple remote destinations corresponding to each of the addresses in the list of multiple remote destination addresses [col.2, lines 40-56].

Boivie further teaches that the embedding step further comprises:

embedding in a header section of an internetworking protocol (IP) data packet a specially formatted IP options field [col.3, line 66 – col.4, line 16]; and use a level-3

protocol field to indicate that the data packet is a small group multicast, followed by a level-3 header, which is then followed by the payload.

Boivie does not specifically teach (i) setting a code byte within the IP options field to a specified value to indicate that the data packet is a DAMP data packet [note that Applicant indicates that the term DAMP is used as a label only, and other terms can define the same or similar protocols (see paragraph 16 of the Specification)] and (ii) setting a length byte to a determinable value to indicate the length of the IP options field.

However, it is would have been obvious to one of ordinary skill in the art to have made use of IP protocol's option field because the option field follows immediately after the source/destination fields and thus it is efficient to enter additional destination fields into the option field and uses a length byte to indicate the length of the IP option field [note that Boivie's example packet at col.4, lines 8-16 also place the source/destination fields before the payload, which indicates that the option field could have been used for additional destination addresses and, as a conventional IP protocol, it is well known that each IP address is represented as a 4-byte code].

7. As to claim 2, Boivie further teaches that the method further comprises using the network elements to transmit the data packets without having the data packets travel over any segment of the network more than once [col.4, lines 32-35].

8. As to claim 3, Boivie further teaches that the method further comprises transmitting the data packets to the selected multiple remote destinations without using a subscription service to initiate delivery of the data packets [col.2, lines 4-24; i.e., Boivie's small-group multicasting scheme is designed to avoid the need of using multicasting subscription service].

9. As to claim 5, Boivie does not specifically teach that the method further including network storage devices in the list of selected multiple remote destinations.

However, it is well known that network storage devices such as the nodes associated with service containers, databases, and storage area network are legitimate destination nodes for IP packets. Additionally, Boivie teaches that application of the small group multicasting technique is not prevented for such applications [col.5, line 63 – col.6, line 3].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include network storage devices as part of Boivie's multicasting destination addresses because Boivie's small group multicasting technique would simplify the multicasting communication protocol involving a small number of network storage devices.

10. As to claims 7-10, 12-15, 17 and 20-21 since the features of these claims can also be found in claims 1-3, 5 and 19 they are rejected for the same reasons set forth in the rejection of claims 1-3, 5 and 19 above.

11. Claims 6 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of their respective base claims and overcome the USC 112 2nd paragraph-related issues (see paragraph 3 of this instant application).

12. Applicant's arguments filed on 2/9/2005 for claims 1-3, 5, 7-10, 12-15 and 17 have been fully considered but are moot in view of the new ground of rejection.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)872-9306 for official communications; and

(571)273-3969 for status inquires draft communication.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

April 26, 2005

Allen Jan L.
4/26/05